

**Remarks/Arguments:**

The Office Action rejects claims 1,3, 27-29 under 35 U.S.C. § 112, second paragraph, as being indefinite due to the use of the phrase “less than about.” Claims 8, 10, 11, 12, 20, 23 24 are rejected for insufficient antecedent basis, but the Office noted that this rejection would be obviated if all claims are amended to recite either a method or a process. Claim 23 also is rejected for insufficient antecedent basis for “crude emulsion.” The Office Action also makes multiple rejections under 35 U.S.C. § 102 (b); Claims 1-7, 11, 20-29 are rejected as being anticipated by Desai et al. US Patent No. 5,916,596, and Claims 1-29 are rejected as being anticipated by Parikh et al. US Patent No. 5,922,355.

Claims 8-19 and 21-25 have been amended to recite “process” rather than “method”. Claim 1 has been amended to include the term “emulsion,” and claim 23 has been amended to remove the word “crude” modifying emulsion. Claim 20 has been cancelled. Applicants respectfully understand that these amendments will obviate the insufficient antecedent basis rejections.

The new claims 30-38 specify size ranges for particles formed by processes claimed in claims 1 and 25 and are supported by paragraph [0039] of the original application and claim 29. Claim 39, which recites adding a surface-active compound to the system, is supported by paragraph [0029] of the specification.

With reference to the rejections of claims 1, 27-29 as being indefinite due to the use of the phrase “less than about,” applicants respectfully suggest that one of ordinary skill in the art would understand that  $\mu\text{m}$  and  $\text{nm}$  are very small units of measurement and therefore one of ordinary skill in the art would understand the scope of values that

would satisfy this limitation. Similarly, applicants respectfully suggest that one of ordinary skill in the art would understand the scope of values that would satisfy the feature in claim 3 of “an amount by weight of the organic phase from less than about 1% to about 40%.”

The Office has not indicated why the use of “about” in the present claims leads to indefinite claiming. Applicants respectfully believe that requiring further definition of these limitations would be contrary to the scope of protection to which patent holders are entitled. Reconsideration and withdrawal of this §112 rejection are respectfully requested.

Concerning the first § 102(b) rejection, the Office suggests that Desai et al. disclose a specific embodiment of the invention claimed by applicants. Specifically, the Office cites Desai’s sonication of an emulsion. However, Desai merely uses sonication as one of a number of methods to create an emulsion of “micro and nanodroplets,” not as a method of evaporating the solvent from an organic phase as applicants claim. (Col. 9 lines 27-35; Col. 17 lines 23-27). Unlike applicants, Desai uses “reduced pressure” to evaporate the solvent from an emulsion to yield a “colloidal system ...of nanoparticles” (Col 9, lines 40-42.) Furthermore, in all Desai’s examples of particle formation, the particles are formed by transferring mixtures to a Rotary evaporator where the solvent is removed at reduced pressure. (For example see Col. 17 lines 4-9, Col 17 lines 28-31, Col.18 lines 12-16, Col. 18 lines 37-41; Col. 18, line 67 - Col. 19, line 4.).

In contrast, Applicants do not reduce pressure to evaporate the solvent of the organic phase containing the pharmaceutically active agent. Instead, Applicants sonicate the emulsion long enough to cause the solvent of the organic phase to evaporate, which

decreases the solubility of the compound in the emulsion, and results in precipitation of the compound. (Application, paragraphs [0017] and [0036] of the specification).

Applicants have amended claims 1 and 25 to clarify that the water insoluble or slightly water soluble pharmaceutically active compounds are dissolved in the water immiscible solvent of the organic phase of the emulsion system. (Supported by paragraph [0017]).

In addition, Applicants have amended claims 1 and 25 to clarify the particles of the pharmaceutically active compounds are formed by precipitation as a result of sonication that evaporates the water immiscible solvent which decreases the solubility of the compound in the system. (Supported by paragraphs [0017] and [0036]).

Consequently, Desai et al. do not teach one of ordinary skill in the art a process of using sonication to evaporate a water immiscible solvent from an organic phase that results in the precipitation of pharmaceutically active compounds into an aqueous phase. Because claims 2-7, 11, 21-24 are dependent on claim 1 and claims 26-29 are dependant upon claim 25, Desai et al. do not teach one of ordinary skill in the art the inventions claimed by these claims 1-7, 11, 21-29. Reconsideration and withdrawal of the Desai - based § 102 (b) rejections of claims 1-7, 11, 21-29 are respectfully believed to be appropriate for these reasons.

The Office also rejects claims 1-29 as being anticipated by Parikh. The Office cites Parikh's example 1, in which Parikh combines cyclosporine, mannitol, surface active agents and water to form a mixture. The Office suggests that mannitol is an organic compound so it would form an organic phase. However, mannitol's solubility in water is greater than 100mg/m; therefore the 55 mg/ml used in Parikh's example 1 would not form an organic phase but instead be an aqueous solution. (Mannitol

solubility in water > 10%; see material safety data sheet from Science Stuff, Inc.

<http://www.sciencestuff.com/msds/C2050.html>), print out copy attached.

In addition, as the Office points out, unlike applicants who use sonication to precipitate a dissolved compound to form particles, Parikh teaches using sonication to reduce the size of previously formed particles. (Col. 10 line 24-26). As noted above, applicants have amended claims 1 and 25 to clarify that the pharmaceutically active compound is dissolved in the water immiscible solvent of the organic phase, and sonication is used to evaporate the water immiscible organic solvent which decreases the solubility of the compound resulting in the precipitation of the compound. Consequently, the method of Parikh which does require an organic phase and which utilizes sonication - **-not to form particles, but instead to reduce the size of previously formed particles-** - would not teach one of ordinary skill in the art the use of sonication to precipitate a water insoluble compound from an organic phase of an emulsion to form particles in an aqueous solution.

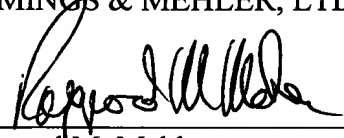
Reconsideration and withdrawal of the § 102 (b) rejection of claims 1 and 25 based on Parikh are respectfully believed to be appropriate for these reasons. Applicants claims 2-19, 21-24, 26-39 are dependant upon either claim 1 or claim 25, and their allowance is respectfully believed to be in order.

Applicants have made an earnest endeavor to place this application into condition for allowance, and favorable consideration is respectfully requested.

Respectfully submitted,

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